

a center roller to be driven to rotate positioned and fixed in a predetermined position; and

a pair of bending rollers to be driven to rotate disposed opposing the center roller at one side of the center roller, movable toward and away from the center roller, the belt-shaped thick steel material being bent by being transferred between the center roller and the pair of bending rollers,

wherein the center roller is provided with an annular recess formed therein around the center roller, the pair of bending rollers are respectively provided with annular convex portions formed thereon around the bending rollers, the convex portions to be inserted in the annular recess of the center roller at a predetermined position of the annular recess of the center roller, and the belt-shaped thick steel material having one of an L-shaped cross-section and a U-shaped cross-section is transferred between the center roller and the pair of bending rollers in a manner such that a concave portion of the belt-shaped thick steel member having one of an L-shaped cross-section and a U-shaped cross-section faces toward the outside at the annular recess of the center roller and the convex portions of the pair of bending rollers are positioned in the concave portion of the belt-shaped thick steel material having one of an L-shaped cross-section and a U-shaped cross-section.